

EO2652

FIELDS, WAVES, AND ELECTROMAGNETIC ENGINEERING (4-1)

Instructor: Professor David Jenn
S-414, 656-2254
jenn@nps.navy.mil
home page: web.nps.navy.mil/~jenn/

Text: *Fundamentals of Applied Electromagnetics*, Fawwaz Ulaby, Prentice-Hall (2001 Edition)

Prerequisites: Vector Calculus and differential equations

Objective: To provide the foundation for subsequent courses in microwave engineering, antennas, radiation, scattering, and propagation.

Topics:	Vector analysis	3 hours
	Electrostatics	8
	Steady electric currents	3
	Magnetostatics	6
	Maxwell's equations	4
	Plane waves	6
	Transmission lines	6
	Waveguides and resonators	4

Grading:	Graded homework	15%
	2 Midterms @20%	40
	Final	35
	Lab reports (collected finals week)	10

Laboratories:*

1. Static fields
2. Pulses on transmission lines
3. Standing waves on transmission lines
4. Slotted line impedance measurements
5. Waveguide measurements

Other notes:

- Exams are open book and notes
- Flexible lab scheduling (sign up sheet on the door of S-419)
- Students work in groups of 2-4
- Lab booklets describing the procedures will be available in the lab and on the internet

*Order of the labs may vary